

Date: \_\_\_\_\_  
User: \_\_\_\_\_

Thursday, 1/25/2007 10:24:01 AM

· Kim Johnston

# Process Sheet

Customer : CU-DAR001 Dart Helicopters Services  
Job Number : 30462  
Estimate Number : 10270  
P.O. Number : N/A  
This Issue : 1/25/2007 S.O. No. : N/A  
Prsht Rev. : NC  
First Issue : N/A Type : LARGE FAB ASSY  
Previous Run : 30180  
Written By : \_\_\_\_\_  
Checked & Approved By : \_\_\_\_\_  
Comment : Est Rev: A 04.03.22 New issue KJ/RF

Drawing Name	: LONG STEP ASSEMBLY HIGH SKID LH			
Part Number	: D350591311			
Drawing Number	: D3272 REV A			
Project Number	: N/A			
Drawing Revision	: A			
Material	: N/A			
Due Date	: 2/28/2007	Qty:	12	Um: Each

### Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0 DC DOCUMENT CONTROL



**Comment:** DOCUMENT CONTROL

Photocopy bluefile and type labels as per PPP D350-591-311 CHG001

RS 07.02.02 (12)

2.0	D2622120C	Extrusion
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**Comment:** Qty.: 1.0000 Each(s)/Unit      Total: 12.0000 Each(s)

Pick:

Qty	Part Number	Description	Batch
1	D2622-120	Extrusion	330199

PE.07.05.03 12

3.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1
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**Comment:** LARGE FABRICATION RESOURCE 1

1-Cut D2622-120 extrusion to 116.25" long as per Dwg D3272 using cutting table setup DT 8185-2A *11.07.05.03* *12*

2-Drill extrusion as per Dwg D3272 using Jig DT8680 for rivets.

№. 07.05.03 12

### 3-Deburr

06.07.05.03 12

4.0	QC5	INSPECT WORK TO CURRENT STEP
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**Comment:** INSPECT WORK TO CURRENT STEP

5.0	D30671	End Plate
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**Comment:** Qty.: 1.0000 Each(s)/Unit      Total: 12.0000 Each(s)

Pick:

Qty	Part Number	Description	Batch
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 30462

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description :

1 D3067-1

End Plate B30559

*PE* 07-05-03 12

6.0

D32191

Support



Comment: Qty.: 2.0000 Each(s)/Unit Total: 24.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D3219-1

Support

B30562

*PE* 07-05-03 12

7.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel end for welding FWD ONLY

2-Weld Support using Jig DT8719, weld Fwd End Plate as per QSI 004 & Dwg D3272

A/R Aluminum Rod

M102756  
M10317

3-Grind End Plate flush

*PE* 07-05-03 12  
*PE* 07-05-04  
*PE* 07-05-04 12

8.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

*1207/05/07* (12)

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*1207/05/07* (12)

10.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

*12X*  
*M-L* 07/05/08

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*FF* 07-05-08 12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 30462

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

D3065041

Step Leg Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 12.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3065-041

Step Leg Assy

B 30466

FF 07-05-10

12

13.0

D30661

Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total: 24.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

2 D3066-1

Spacer

B 30767 x 19  
B 30558 x 5

FF 07-05-10

12

14.0

MS20600AD4W4

Rivets



Comment: Qty.: 16.0000 Each(s)/Unit Total: 192.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

16 MS20600AD4W4

Rivet

H 103481

FF 07-05-10

12

15.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Assemble Leg Assembly as per Dwg D3272.

Leave one rivet out until welding is complete.

FF 07-05-10

12

16.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07-05-10

12

17.0

D30671

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total: 12.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3067-1

End Plate

30559

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 30462

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description :

18.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel Aft end for welding

FF 07-05-08

12

2-Inspect for foreign object as per QSI 024

FE 07-05-10

12

3-Weld Aft End Plate as per QSI 004 & Dwg D3272

FE 07-05-10

12

A/R Aluminum Rod M102756

4-Grind End Plate flush

FE 07-05-11

12

5-Install last rivet as per Dwg.

FE 07-05-11

12

19.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

M 07/05/14 (12)

20.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

M 07/05/14 (12)

21.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

touch up alodine

Paint M1103706

M-L 07/05/14

(12X)

22.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

M-L 07/05/14

(12X)

23.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Wing Walk as per Dwg D3272 and QSI 005 4.4

FE 07/05/15 (12)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 30462

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description :

24.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: Inspect Powder Coat and Wing Walk

*PC 1/15/18 (12)*

25.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1  
Pick Packing Kit

26.0

D22303

Mounting Lug



Comment: Qty.: 4.0000 Each(s)/Unit Total: 48.0000 Each(s)  
Pick: Packing Kit  
Qty Part Number Description Batch  
4 D2230-3 Mounting Lug *B29806*

27.0

D2618

Bushing



Comment: Qty.: 2.0000 Each(s)/Unit Total: 24.0000 Each(s)  
Pick: Packing Kit  
Qty Part Number Description Batch  
2 D2618 Bushing *B30465*

28.0

D2856400

Abrasion Strip



Comment: Qty.: 0.6000 f(s)/Unit Total: 7.2000 f(s)  
Pick: Packing Kit  
Qty Part Number Description Batch  
2 D2856-400-720 Abrasion Strip *B30822*

29.0

D32351

Mounting Lug



Comment: Qty.: 2.0000 Each(s)/Unit Total: 24.0000 Each(s)  
Pick: Packing Kit  
Qty Part Number Description Batch  
2 D3235-1 Mounting Lug *B30050*

30.0

D3278041

Support Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 12.0000 Each(s) *same*  
Pick: Packing Kit  
Qty Part Number Description Batch  
1 D3278-041 Support Assembly *B29647* *7x*

*B30363*

*5x*

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 30462

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description :

1 D3272-041(ref) Step Assembly

N/A

31.0

AN335A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 24.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 AN3-35A Bolt

M102339

32.0

AN413A

Bolt



Comment: Qty.: 8.0000 Each(s)/Unit Total : 96.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 AN4-13A Bolt

M103947

33.0

AN536A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 24.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 AN5-36A Bolt

M103177 (19) M103154 (5)

34.0

AN960JD10

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 48.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD10 Washer

M103947

35.0

AN960JD416

Washer



Comment: Qty.: 16.0000 Each(s)/Unit Total : 192.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

16 AN960JD416 Washer

M102929

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 30462

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description :

36.0

AN960JD516

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 48.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD516 Washer M103641

37.0

MS21042L3

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 24.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21042L3 Nut (or -3) M104213 X

38.0

MS21042L4

Nut



Comment: Qty.: 8.0000 Each(s)/Unit Total : 96.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 MS21042L4 Nut (or -4) M103914 X

39.0

MS21042L5

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 24.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21042L5 Nut (or -5) M102536 X

40.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

C 207105115 (12)

C 715115 (12)

41.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D350-591-311

Location: \_\_\_\_\_

New B 7/5/15 SQ (12)  
EPAS/05/15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: 4 Date: 07/05/17  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 1/25/2007 10:24:02 AM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 30462

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description :

42.0

QC21

FINAL INSPECTION/W/O RELEASE



10

Comment: FINAL INSPECTION/W/O RELEASE

07/05/17

Job Completion



07-05-17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries





DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. D3272	REV. A SHEET 1 OF 2
DATE 04.03.01		TITLE STEP ASSEMBLY, HI LONG	SCALE NTS
A	04.03.01	NEW ISSUE	

**RELEASED**  
04.04.05 *#*

Part No.	Description	QTY -041	QTY -042
D3272-041	Step Assembly, High Long (LH)	X	
D3272-042	Step Assembly, High Long (RH)		X
D2622-120	STEP EXTRUSION	1	1
D3219-1	SUPPORT	2	2
D3065-041	LEG ASSEMBLY	1	1
D3066-1	SPACER	2	2
D3067-1	END PLATE	2	2
MS20600AD4W4	RIVET	16	16

**GENERAL NOTES:**

- 1) -041 SHOWN, FOR -042 INSTALL D3219-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005.4.1  
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

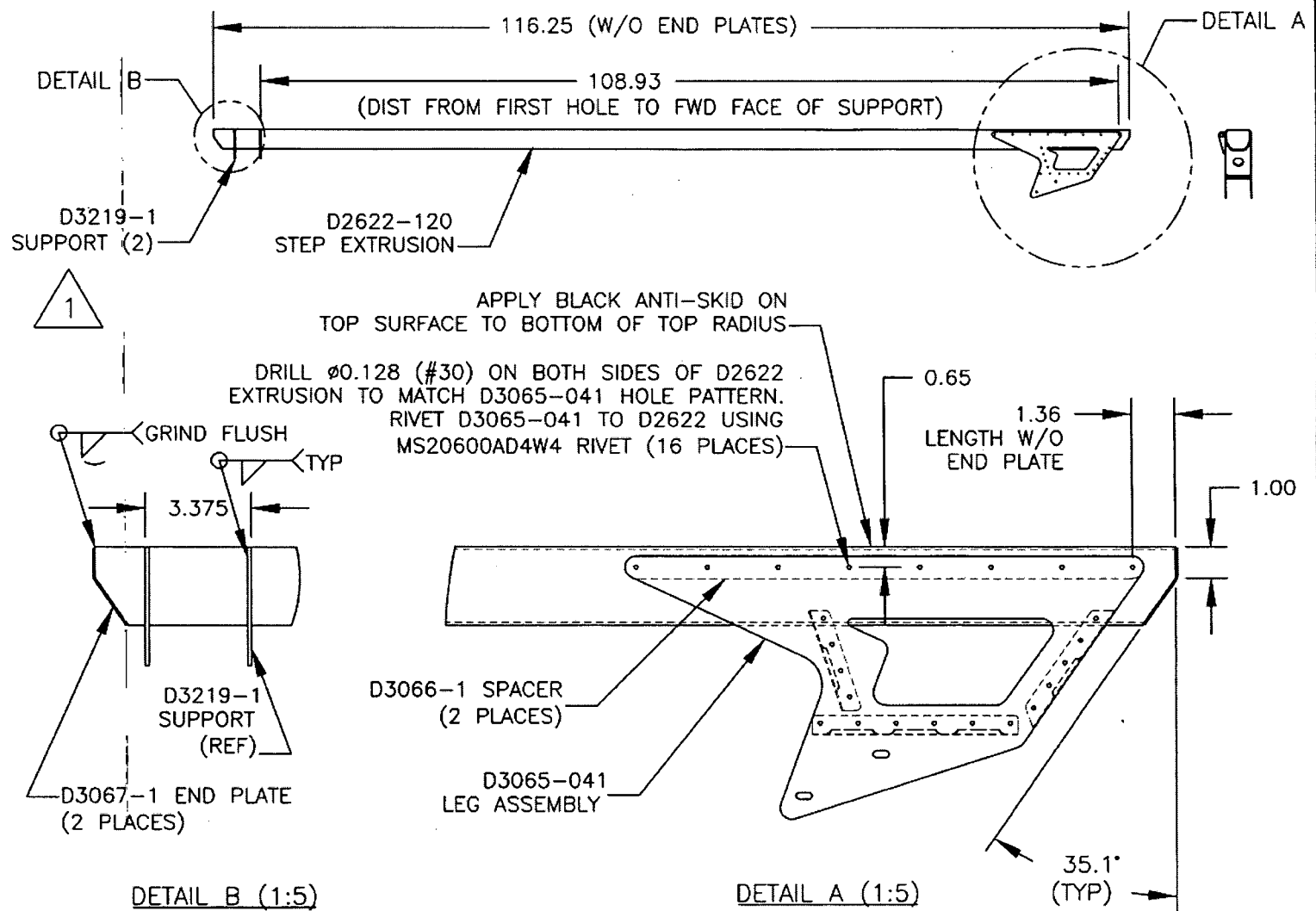
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WITHOUT NOTICE  
WORK ORDER  
NO. 30462

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DESIGN	DRAWN BY	DART AEROSPACE LTD	
CHECKED <i>CP</i>	APPROVED <i>CP</i>	DRAWING NO.	REV. A
		D3272	SHEET 2 OF 2
DATE	TITLE		SCALE
04.03.01	STEP ASSEMBLY, HI LONG		1:20



RELEASED  
04.04.05

NO. 30462  
WORK ORDER  
SUBJECT TO AMENDMENT  
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